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THE STATE OF ANALYSIS OVER THE PAST TEN YEARS Friday 14 October 1988 SPEECH FOR THE ASSOCIATION OF FORMER INTELLIGENCE OFFICERS

I. Introductory Remarks

- * Good that conference is focusing on analysis.
- * State of analysis is generally healthy, improvement continuing, more to come.
- * Plan to address my remarks to people and data processing.
- * First, some comments on the role of analysis and analysts.

II. Analysis in the Intelligence Process

- * Secret or exotic collection makes intelligence unique

 (and distinct from scholarship or journalism). And analysis

 makes collection intelligible and useful.
- * The intelligence cycle of requirements, collection, processing, courd with a ?
 analysis, and production.

III. The Human Cadre of Intelligence Analysis

NOTE: Data mostly from CIA because more readily available. Broadly speaking, trends in the Intelligence Community are similar. Although the

^{*} C/NIC will complete after returning from TDY.

analytic corps in DIA consists of both military and civilian officers, my comments apply solely to civilians since military analysts have their own career pattern.

Growth of Numbers, Quality, Qualifications.

- Community have grown nearly 30%. But the portion of Intelligence Community personnel made up of analysts has remained roughly the same as in the past because of simultaneous growth in other areas. For example, analyst positions in CIA's Directorate of Intelligence (DI) have increased about 28%, but continue to make up the same 43% of total DI positions as in the past.
- -- Growth was $\sqrt{\text{driven}}$ by the desire of both the Administration and Congress to strengthen the nation's overall intelligence capabilities. This has led to large increases in the analyst population.
- The success in filling these new positions reflects both a more favorable atmosphere for hiring new analysts and a lower attrition rate as compared to earlier years. It also shows the DI's greater success in general recruiting efforts, partly as a result of incentive programs such as the Graduate Fellows Program, and partly as a result of targeting and enginees? (os we, occ) specialists in high demand, such as economists.
- -- Today's analyst is relatively young, nearly half being under 35 years of age. Work experience is limited and generally not in the analytic

area. At the same time, the present crop of DI analysts has travelled abroad more (e.g., personal travel, study abroad) than those hired a decade ago.

- -- With regard to their academic background:
- o Over the last 10 years, the majority of new analysts have come from major state universities, although private schools also provide the DI with new analysts.
- o Test scores are higher in analytic aptitudes, interpersonal skills, and work attitudes than in the late 1970s.
- o More entrants have Master's degrees than in earlier years. The agency also recruited a greater number of Ph.D.s during the early 1980s when market conditions were favorable to hiring in this advanced academic area.
- o Entrants with language capabilities have dropped approximately 10% since the late 1970s. This decrease probably reflects a lowering of language requirements by academic institutions over the last decade. Still, the CIA boasts a capability in more than 60 languages, with expertise concentrated in French, Spanish, German, and Russian.

Profile of DI Skills and Personnel Characteristics.

-- Over the last ten years the variety of academic backgrounds and specialties of analysts hired has increased as the DI has sought to respond to the requirements of new policy issues--narcotics, terrorism, and political instability, to name a few.

-- Unlike their more senior peers, the new analysts arrive with higher expectations and are more career- and achievement-oriented, but are also more apprehensive over small setbacks. Moreover, it appears that analysts have become more aware of the performance evaluation system and career advancement paths, showing keen interest in understanding procedures and keeping informed about new developments.

"Typical" Career Development.

- -- Both CIA and DIA currently have their own individual career service programs that seek to respond to the mission, needs, and situation of their officers.
- -- As a general rule, the more successful analysts are encouraged to become generalists and acquire broad expertise on a variety of issues. A drawback of this approach is that generalists may lack the depth of knowledge needed. The Intelligence Community's historical perspective on a particular problem is often lost.
- -- In recent years, there has been an increased effort made to make available higher-graded positions for analysts who wish to remain in analysis. In the past, analysts often switched to management positions to make themselves elegible for promotion, regardless of whether they really wanted to manage.
- -- CIA has opened new opportunities through the Senior Intelligence
 Analyst Program, and expects to designate one-third of the new SIS positions
 requested in its budget for experts.

-- In the last five years, DIA has doubled its number of supergrades, with over half of the positions going to analysts. DIA also has a career enhancement program for analysts that guides them through various stages of training and assignments, helping them qualify for higher grades in their own career tracks.

IV. ADP and Modern Electronic Tools

Computers and Intelligence Analysis Go Back Several Decades, Mostly in Weapons Analysis.

- -- The range and volume of data handled by today's analyst has grown rapidly. For example, information available to intelligence analysts probably tripled between 1977 and 1984. It is likely to have a similar increase between 1984 and the early 1990s.
- -- New collection programs coming on stream will offer significant qualitative improvements, thus increasing our opportunities to obtain comprehensive, accurate, and timely information when it is needed. But handling this information will require better data processing systems.
- -- A word of caution. Not all of the new information is additive--some new sources replace other, less reliable sources. And not all analytical disciplines receive proportionate gains--much of the new collection is concentrated in military and technical areas.

ADP Impact Is Becoming Ubiquitous, Across the Board.

- -- Several trends are making us dependent on computer support to fulfill our mission: demands to improve the overall quality of analysis; growth in the complexity of issues and of raw intelligence data bases; an increase in the range of analytic issues addressed; shortened deadlines; and the need to develop improved methods for presenting and displaying our products.
- -- Some analytic accounts could not be covered in an acceptable way without the use of computers--such as Soviet strategic weapons and land forces, Soviet agricultural performance, Soviet arms transfers, and economic forecasting for complex economies.
- -- A number of key policy concerns that transcend disciplines and single geographic areas, thus requiring analysis of vast amount of data, have become priority issues: terrorism, narcotics, nuclear proliferation, insurgencies, world energy supplies, and Third World debt.

 Vantual nate: Not all the talking points are related to APP

 What Various Analysts Use ADP For, Impact on the Work Setting, Productivity.
- -- Improvements in efficiency are commonplace: analysts receive, review, and file their mail faster.
- -- Weapons analysts have traditionally taken the lead in applying ADP to support their analytic effort, but they have now discovered innovative applications of ADP to analysis of sophisticated technical data, order-of-battle information, and historical records.

- -- Economic analysts have made extensive use of shared data bases to support their analysis on various military aid programs, international trade, and economic stability.
- -- Political analysts generally have been less enthusiastic about the use of ADP as an analytic tool, preferring intuitive reasoning and conventional research methods. Nevertheless, the ability to build a data base of key indicators of a country's foreign involvement, for example, has sparked increased interest in using ADP in political analysis.
- The quantity and quality as well as the presentational style of products put out by the community have undergone significant change over the last ten years. This has been the result of changes in the numbers and needs of consumers as well as greater responsiveness and competitiveness among producers.
 - -- In FY 1987 the community produced a few thousand items of finished intelligence that directly responded to national requirements. In addition, the community produced a vast amount of current intelligence and products not directly tied to national requirements.
 - -- National requirements have more than tripled over the last 10 years. During the same period, the number of high-level consumers of community products has more than doubled. This figure encompasses both new organizational subscribers--DEA, FAA, and NASA--and new individual subscribers within traditional consumers of intelligence such as the White House, and the Departments of State and Defense.

- -- The DI's clientele has broadened to include Commerce, Treasury, and Energy. Its support to arms control has grown to include both the negotiators of new agreements and verifiers of existing ones. Congress also has become a key consumer.
- -- DIA traditionally has provided key intelligence support to the Joint Chiefs of Staff and senior military echelons. A few years ago DIA expanded its user base to include the CINCs, the U&S commands, as well as various tactical levels in the services.
- -- Since the 1981 reorganization of the DI, CIA products have shown more interdisciplinary analysis; clearer separation of fact from analysis; more systematic and careful reference to sources; increasing use of data bases to produce periodic publications; greater emphasis on conciseness and clarity as well as policy relevance; and greater use of outside experts to review products and help us water new methodologies and
- -- The presentational styles of all major intelligence agencies have changed over the years. Moreover, "marketing techniques" have been refined and expanded, with the agencies vigorously going out to "sell" their product.

New Methodologies.

-- Although analysis of military hardware suffers from limited data, it is relatively "easy" to handle because of the availability of statistical modeling (e.g., the accuracy of ICBMs, underground testing). Force

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projection problems are more difficult in that standards for a good force projection model have yet to be agreed upon. Political problems, however, are the most difficult because they do not readily lend themselves to statistical analysis.

- -- The Office of Global Issues in CIA uses a number of significant new methodologies: an image processing system that facilitates analysis of geographic images; various models and data bases that assist in analyzing and forcasting agricultural crops; political indicators to study instability and insurgency.
- -- The Office of Soviet Analysis makes heavy use of military and economic models for analysis. Political analysts are aided by a multidisciplinary data base of Soviet and Soviet-sponsored military, economic, and political involvement in the Third World and the developed West. The data base provides analysts with an independent index to compare Soviet foreign policy intentions with actual performance.
- -- The Office of Near Eastern and South Asian Analysis has used econometric models and spreadsheets for forecasting purposes and to perform scenario analysis. Influence diagrams, peace gaming, analysis of polling data, a cybernetic model, and a paths-to-leadership model are now being used in political analysis. War gaming, sophisticated mappings systems, and spreadsheet-based data bases are being used in the Office's military analysis.

VI) Challenges to Management

- -- With the DI's reorganization in 1981, management of analysis underwent a fundamental change: analysts were encouraged to attend conferences, undertake academic training, and accept rotational assignments in other agencies and abroad. The effect of these changes has been felt on quality, production, and style.
- -- The need to craft the product carefully and pay attention to its presentation has grown exponentially. Moreover, greater involvement of Congress and its greater access to intelligence products, coupled with the "leakmaship" that has grown in the past decade or so, means that any product produced by the Intelligence Community can become politically controversial and debated in the media.
 - * Motivate and reward a quality workforce.
 - * Make power of ADP fully available.

-- Impact of budget constraints - esp. on our use of contractors + outside experts, We'll need to be more effective with less,

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